

ABSTRACT

A winding machine (1) for winding up sensitive bobbin material (8), for example yarn or tape, arriving from a feeding apparatus (11) includes a winding spindle (4) being designed and arranged to be rotated by a drive. A unit (14) of the machine (1) serves to determine a signal which is approximately proportional to the tension of the bobbin material (8). The unit (14) includes an arm (15) being designed and arranged to be movable to a limited extent and only one roller (16) being arranged at the arm (15). The only one roller (16) is designed and arranged to guide the bobbin material (8) to contact the feeding apparatus (11) and the roller (16) without contacting other elements in between. Especially, the winding machine (1) may include a plurality of winding heads (30) each including a winding spindle (4), a traversing apparatus (10) and a unit (14) for winding up bobbin material (8) arriving from a plurality of feeding apparatuses (11).

BEST AVAILABLE COPY